



# LABOPTİK

MÜHENDİSLİK VE MEKATRONİK SİSTEMLERİ SANAYİ TİCARET LİMİTED ŞİRKETİ



**LBTEK**

**Edmund**  
optics | worldwide

**HAMAMATSU**  
PHOTON IS OUR BUSINESS

pieplow-brandt

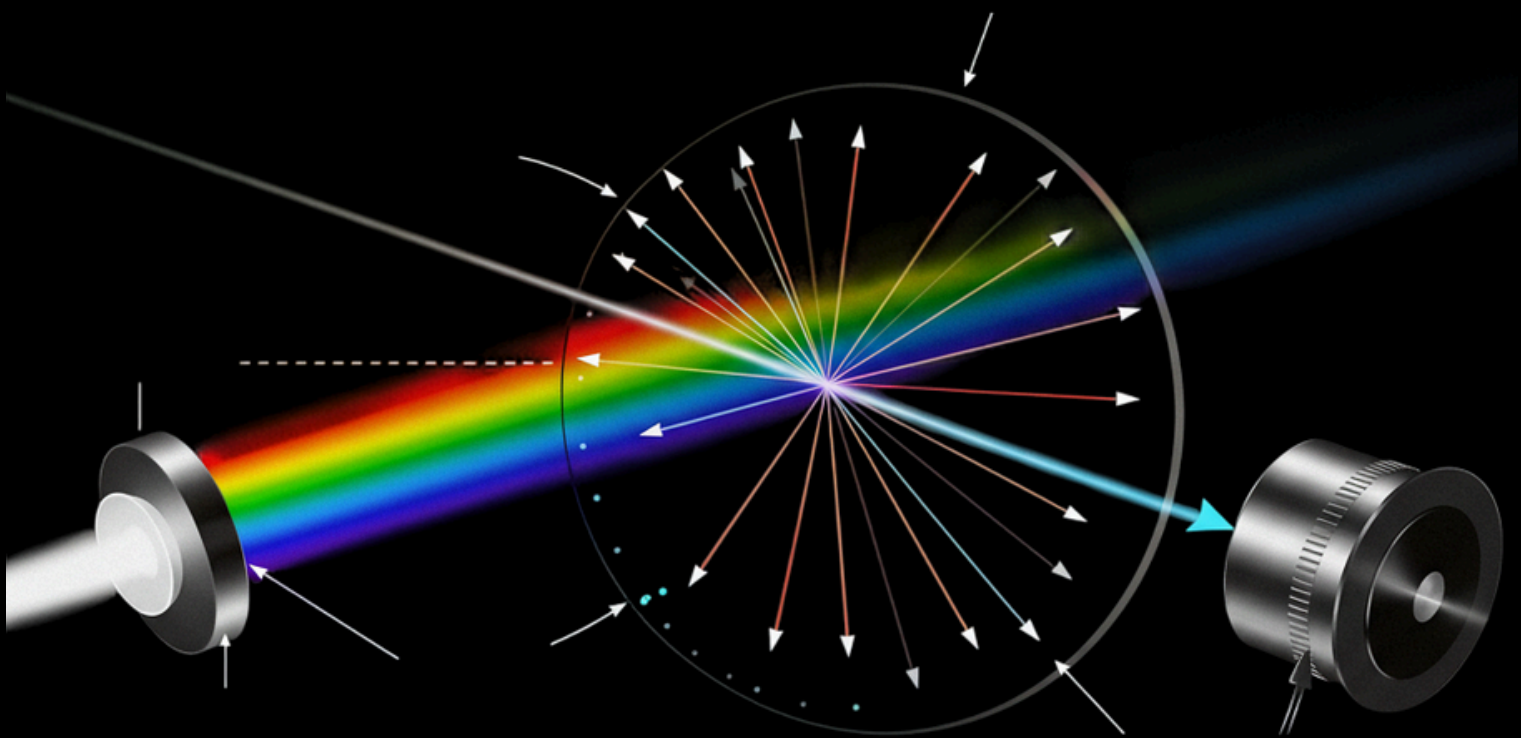
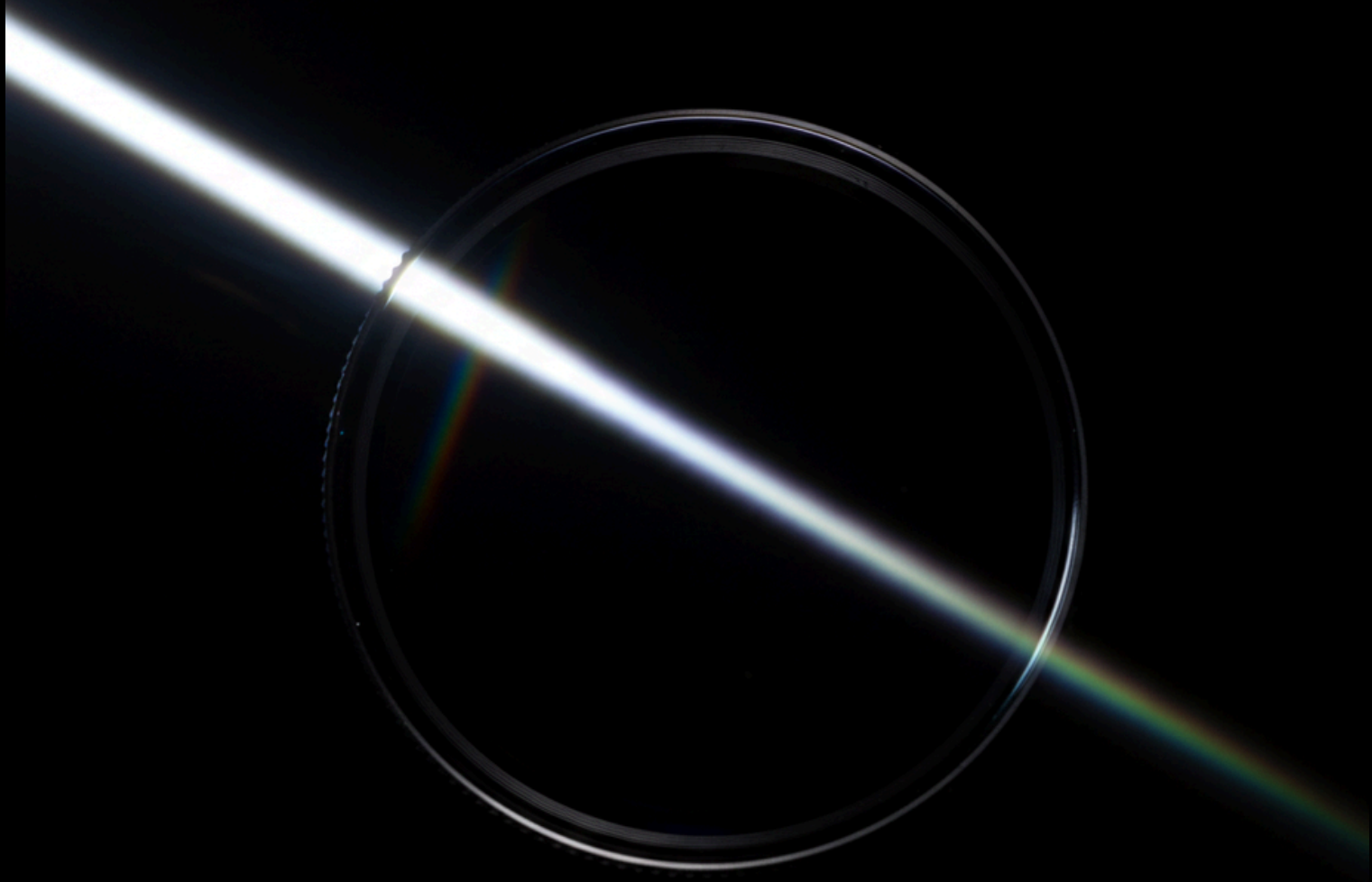
**Fastcom**

**THORLABS**

**UNIVERSAL**  
PHOTONICS

**LAYERTEC**

**bertin**  
technologies







Firmamız, mühendislik, ithalat-ihracat ve üretim alanlarında uzmanlaşmış, kaliteyi, güveni ve mükemmeliyeti ilke edinmiş bir kuruluş olarak faaliyet göstermektedir. Her adımda sektörel gelişmeleri yakından takip ederek, kendimizi daima ileriye taşıyan vizyoner bir bakış açısıyla hareket ediyoruz.

Teknolojiyi etkin biçimde kullanarak, müşterilerimizin ihtiyaçlarına modern ve etkili çözümler sunmak, şirketimizin temel felsefesini oluşturmaktadır. Mühendislik, bakım-onarım, lojistik ve gümrük işlemlerini dışa bağımlı kalmadan, tamamen kendi bünyemizde profesyonelce yürütüyor; süreç yönetiminde hız ve güvenliği ön planda tutuyoruz.

Kuruluş noktamızı oluşturan laboratuvar malzemeleri başta olmak üzere; deneyimli ve alanında uzman kadromuzla her türlü talebe yanıt verebilecek kapasitede, yenilikçi ürün ve hizmetler geliştiriyoruz. Genişleyen ürün yelpazemizle, sektördeki konumumuzu her geçen gün daha da güçlendirmekteyiz.

## **Başlıca hizmetlerimiz ;**

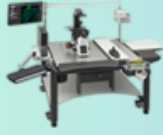
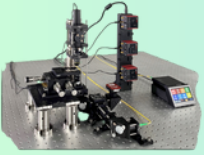
### **• Müşteri İhtiyaçlarına Özel Ürün Tedariği**

Yurt içi ve yurt dışı kaynaklardan, ihtiyaca yönelik özel komponent ve sistemlerin temini.



## • Optik ve Optomekanik Malzemeler

Savunma ve endüstriyel uygulamalara uygun yüksek hassasiyetli optik ve optomekanik çözümler. Yüksek hassasiyetli kristal malzemelerin üretimi ve optik bileşenlerin geliştirilmesi konusunda uzmanlaşmış tedarikçilerimiz ile **Fluorit**, **Silikon (Si)**, **Germanyum (Ge)**, **Çinko Sülfid (ZnS)**, **Çinko Selenid (ZnSe)** gibi **kızılötesi (IR)** malzemeler ayrıca **optik pencereler**, **lazer mercekle**ri, **prizmalar** ve **kaplama** gibi ürünlerde destek sağlamaktayız.



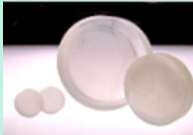
## • Optik ve Kimyasal Hammaddeler

Laboratuvar ve üretim süreçlerinde kullanılan teknik özellikli ham malzeme tedariği.

Ball Lenses



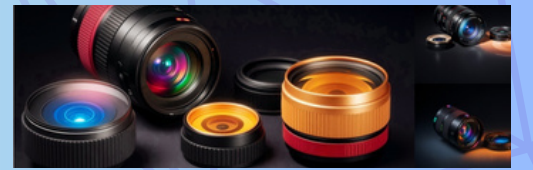
Glass Blanks



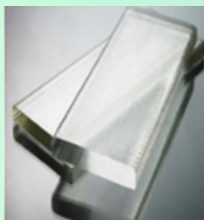
Spherical Lenses



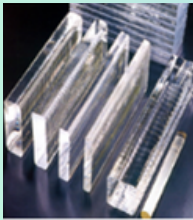
Large Blocks



Borosilicate



Strip Glass



Zero Expansion Glass



Reflectors





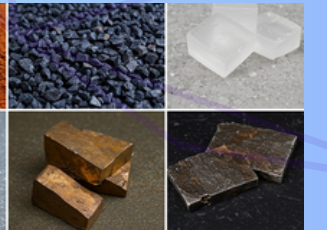
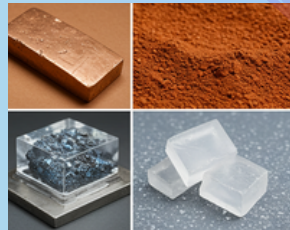
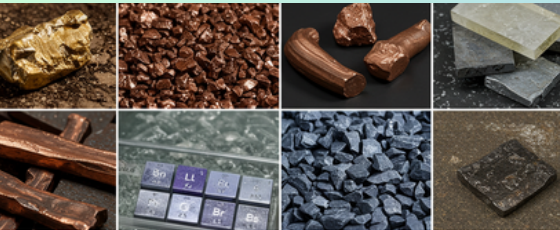
## • Hassas Ölçüm Cihazları

Kalite kontrol, Ar-Ge ve üretim süreçlerine özel, yüksek doğrulukta ölçüm cihazlarının tedariği ve entegrasyonu.

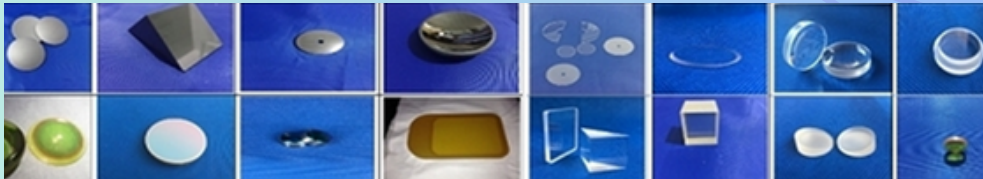


## • Endüstriyel Hammaddeler

Farklı sanayi ihtiyaçlarına yönelik çeşitli teknik ve özel hammaddelerin temini.





| Optical Material           | Ability                                                                                                                                                                                                            | - | Products                                                                                          |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------|
| CaF2/BaF2/MgF2/LiF crystal | D3-D440 mm                                                                                                                                                                                                         | - | rods,blank discks,windows,lens                                                                    |
|                            | D3-D440 mm                                                                                                                                                                                                         |   |                                                                                                   |
| Silicon, Germanium         | D3-D350 mm                                                                                                                                                                                                         | - | spherical lense<br>(D3-350mm Germanium/Silicon)<br>Scanning mirror, Silicon wafer, 2"/3"/4"/6"/8" |
| Other working materials    | Sapphire, Fused Silica, ZnS, Quartz,ZnSe, optical glass                                                                                                                                                            |   | High precision optical Windows<br>lens,prism,filters                                              |
|                            |                                                                                                                                                                                                                    |   | spherical lense                                                                                   |
| Types                      | Filter, customized spherical lens, aspherical, cylindrical lenses, plano window                                                                                                                                    |   |                                                                                                   |
| Application                | Laser, thermal imaging, Spectral cameras, Water Analyser,Uncooled detector, thermal camera space, Infrared Detectors,Medical, Gas Sensors, NightVision, Payload, ultrafast optical spectroscopy, Space & Aerospace |   |                                                                                                   |
|                            |                                                                                                                                |   |                                                                                                   |





## • LBTEK - Optik ve ileri teknoloji laboratuvar ekipmanları

Optik bileşenler, optik modüller, optik sistemler ile optik enstrüman ve ekipmanları kapsayan yüksek teknolojili ürün yelpazemizle, optik alanındaki kullanıcıların ihtiyaçlarına yönelik yüksek kaliteli ürün ve çözümler sunmaktayız.



Micro-Nano Optics



Optical Components



Optical Systems



Fiber Optic Components



Motion Control



Laboratory Tools



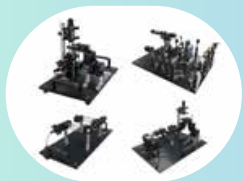
Optical platforms  
and Breadboards



Opto-Mechanical  
Components



Light Source



Optical Teaching  
Systems



Beam Measurement  
and Analysis



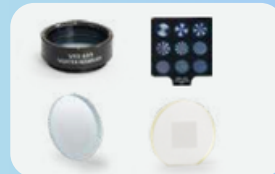
Instruments and  
Equipment

## Homogenizer



- Microlens Array Homogenizer
- DOE Homogenizer
- Cylindrical Lens Array Linear Homogenizer

## Light Field Modulation



- Vortex Waveplate
- Vortex Waveplate Array
- Airy Beam Converter
- Achromatic Waveplate
- Laser Mode Converter



### Beam Splitters



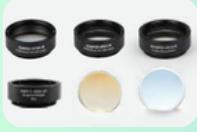
- Non-Polarizing Beam Splitter Cubes
- Non-Polarizing Plate Beam Splitters
- Polarizing Beam Splitter Cubes
- Polarizing Plate Beam Splitters
- Dichroic Mirrors
- Polarizing Prisms

### Gratings and Beam Splitters



- Polarization Grating
- Gratings and Beam Splitters
- Dammann Grating
- Checkerboard Grating
- Liquid Crystal Beam Splitting DOE

### Polymer Waveplates



- Polymer True Zero-Order Half-Wave
- Quarter-Wave Plates
- Polymer Achromatic Half-Wave
- True Zero-Order Six-Segment Waveplate
- Achromatic Six-Segment Waveplate

### Gratings



- Blazed Gratings
- Polarization Gratings

### Diffusers



- Frosted Glass Diffusers
- Frosted Glass Alignment Plates
- Engineered Diffusers

### Standard Optical Post and Rod Components



- Standard Optical Post and Rod Components

### Active Liquid Crystal



- Liquid Crystal Variable Retarders
- Liquid Crystal Polarization Rotators
- Liquid Crystal Optical Switches

### Diffractive Lenses



- Flat Lenses
- Flat Cylindrical Lenses
- Flat Cylindrical Lens Arrays
- Multi-Focus Lenses
- Flat Tapered Lenses
- Flat Microlens Arrays

### Custom Diffractive Optical Elements



- Customizable Phase Structures
- Working Wavelengths
- Sizes

### Optical Rails



- Dovetail Rails and Accessories
- Aluminum Profile Rails and Accessories

### High-Precision Motorized F.Wheels



- High-Precision Motorized Filter Wheels

### System Mechanical Components



- Spatial Filter System Mechanical Components
- Fiber Coupling System Mechanical Components



## Polarization Optical Elements



- Polarization Beam Splitter Cubes
- Zero-Order Waveplates Polarizing Prisms
- Faraday Rotators Multi-Order Waveplates
- Polarizers Polarization Plate Beam Splitters
- Achromatic Waveplates
- Variable Circular Polarizers
- Depolarizers Adjustable Polarization Beam Splitters

## Lenses



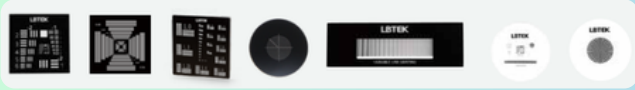
- Plano-Convex Cylindrical Lenses Axicons
- Plano-Convex Lenses
- Plano-Concave Lenses
- Double-Concave Lenses
- Plano-Convex Round Cylindrical Lenses
- Microlens Arrays Lens Kits
- Plano-Concave Round Cylindrical Lenses
- Positive Meniscus Lenses Double-Convex Lenses
- Plano-Concave Cylindrical Lenses Aspheric Lenses
- Gradient-Index Lenses Negative Meniscus Lenses
- Achromatic Doublet Lenses

## Filters



- Neutral Density Filters Notch Filters
- Bandpass Filters Dichroic Filters Edge Filters
- Dichroic Mirrors Laser Line Filters Filter Kits

## Test Targets



- USAF 1951 Resolution Test Targets
- Combination Test Targets
- NBS 1963A Resolution Test Targets
- NBS 1952 Resolution Test Targets
- Combination Test Targets
- Reticles
- Siemens Star Targets

## Mirrors



- Right-Angle Prism Mirrors
- Nd:YAG Harmonic Beam Splitters
- Dielectric Mirrors
- Off-Axis Parabolic Mirrors
- Hollow Retroreflector Mirrors
- Ultrafast Mirrors
- Metallic Mirrors
- Dichroic Mirrors
- Supermirrors
- Laser Line Mirrors

## 30 mm Coaxial System Opt. Element Mounts



- XY Translation Mounts
- 45-Degree Mounting Adjusters
- Z-Axis Translation Mounts
- XYZ Translation Mounts
- Translation Stages and Accessories
- Cylindrical Lens Mounts
- Rotating Quick-Release Mounts
- Gimbal Adjusters
- Rotation Adjusters
- Sliding Filter Mounts
- Filter Wheels
- Clamps
- Mirror Mounts

## Windows



- Germanium Windows
- Calcium Fluoride Windows
- 45° Beam Splitter Compensators
- Zinc Selenide Windows
- UVFS Windows
- Sapphire Windows
- N-BK7 Windows
- Silicon Windows

## 30 mm Coaxial Cubes and Accessories



- Beam Splitter Cube Mounts
- Flat Optical Element Mounts
- Magnetic Quick-Release Cubes
- Coaxial Cubes
- Coaxial Cube Accessories





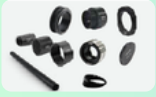


## 60 mm Coaxial System Optical Element Mounts



- XY Translation Mounts
- Rotating Quick-Release Mounts
- Rotation Adjusters
- 45-Degree Mounting Adjusters
- Mirror Mounts
- XYZ Translation Mounts
- Self-Centering Lens Mounts
- Cylindrical Lens Mounts

## Lens Tubes and Accessories



- Lens Tube Sleeves
- Lens Tube Dust Covers
- Wedge Prism Mounting
- Fixed Lens Tube Mounts
- Lens Tubes
- Lens Tube Adapters
- Snap-In Tube Mounts

## Bases



- Threaded Adapters
- Retaining Ring Adapters
- Optical Rail Adapters
- Screw Adapters
- Stainless Steel Adapter Cubes
- Laser Beam Expander Adapters
- LED Point Source Adapters
- Coaxial-Post Adapters

## Apertures/Pinholes



- Adjustable Apertures
- Precision Pinholes
- Optical Slits
- Optical Shutters

## Manuel Translation Stages



- Motorized Rotation Stages
- Motorized Vertical Translation Stages
- Piezoelectric Linear Translation Stages
- Motorized Linear Translation Stages
- Motorized Translation Stage Controllers
- Motorized Angular Translation Stages

## Prisms



- Right-Angle Prisms
- Right-Angle Prism Mirrors
- Hollow Retroreflector Mirrors
- Dove Prisms
- Wedge Prisms
- Penta Prisms

## Manual Translation Stages



- Precision Adjustment Screws

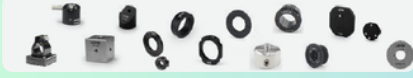
## Multi-Focus Generators



- Multi-Focus DOE



## Adapters



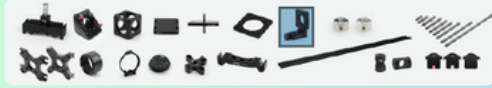
- Optical Element Adapters
- Ø12.7 mm Optical Posts and Accessories
- 45° Mount Adapters
- Ø25 mm Optical Posts and Accessories
- Gimbal Mounts
- Ø38 mm Optical Posts and Accessories
- Screw Sets
- Ø25 mm Post Adapters
- Clamping Blocks
- SM1-Threaded Collimator Mounts
- Flip and Positioning Mounts
- Off-Axis Parabolic Mirror Adapters
- Retaining Rings and Ring Wrenches
- Ø6 mm Coaxial Post Adapters
- Screws
- Adjustable Adapters
- Ø12 mm Optical Posts

## Manual Translation Stages



- Six-Axis Fiber Optic Coupling Translation Stages
- 25 mm Travel Manual Linear Translation Stages
- 13 mm Stainless Steel Translation Stages
- Manual Rotation Stages
- Miniature Dovetail Translation Stages
- XY-Axis Translation Stages
- Angular Translation Stages
- Five-Axis Stainless Steel Fiber Optic Translation Stages
- 13 mm Travel Compact Manual Linear Translation Stages
- 25 mm Travel Stainless Steel Manual Translation Stages
- 13 mm Travel Manual Linear Translation Stages
- Fiber Optic Clamps and Accessories
- Pitch-Yaw-Rotation Translation Stages
- Z-Axis Linear Translation Stages
- Longitudinal Translation Stages
- Scissor Lift Tables

## 60 mm Coaxial Components and Accessories



- Z-Axis Pushers
- Light Blocking Covers
- Snap-In Mounts
- 60 mm Mounting Posts
- Alignment Plates
- Coaxial Plate Locators
- Light Blocking Washers
- 60 mm Coaxial Post Adapters
- Vertical Mounting Plates
- Orthogonal Turning Plates
- Adapter Plates
- SM2 Lens Tubes
- 60 mm Post 90-Degree Clamps

## 30 mm Coaxial Components Accessories



- Z-Axis Pushers
- Light Blocking Covers
- Snap-In Mounts
- 60 mm Mounting Posts
- Alignment Plates
- Coaxial Plate Locators
- 60 mm Coaxial Post Adapters
- Vertical Mounting Plates
- Orthogonal Turning Plates
- Adapter Plates
- SM2 Lens Tubes
- 60 mm Post 90-Degree Clamps
- Light Blocking Washers

## Optical Element Mounts



- Mirror Mounts · MT High Stability Series Products
- Cylindrical Lens Mounts · Filter Mounts
- Translation Mounts · Fixed Lens Mounts
- Vertical Adjustment Mounts · Thin Plate Mounts
- Rotation Mounts · Fixed Support Mounts
- Multi-Axis Optical Adjustment Mounts · Test Tube Mounts
- Prism Mounts · Fixed Microscope Slide Clamps
- Flip and Positioning Mounts · Supports

## MT Hing Stability Series Products



- 1-Inch Stainless Steel Optical Adjustment Mounts
- Fixed Optical Element Mounts
- Cube Beam Splitter Mounts
- Optical Adjustment Mount Accessories and Tools
- Stainless Steel Posts
- Zero-Gap Clamping Blocks
- 0.5-Inch Stainless Steel Optical Adjustment Mounts



### Light Sources



- Semiconductor Lasers
- Helium-Neon Lasers
- LED Collimated Light Sources
- Parallel Coaxial Light Sources
- Calibration Light Sources
- Single Longitudinal Mode Lasers
- Fiber Lasers
- Broadband Continuous Light Sources
- LED Point Light Sources

### Optical Platforms and Breadboards



- Optical Platforms and Breadboards
- Breadboard Accessories
- Breadboard Stands
- Optical Enclosures
- Optical Platform Instrument Racks
- Damped Vibration Isolation Optical Platforms
- Air-Floated Vibration Isolation Optical Platforms
- Honeycomb Optical Breadboards
- Standard Optical Breadboards
- Instrument Rack Light Curtains

### Optical Systems



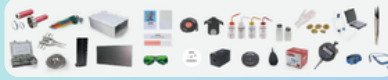
- Opto-Mechanical Systems
- Telescope Systems
- Shearing Interferometers
- Laser Beam Expanders
- Adjustable Delay Lines
- Optical Isolators
- Scanning Lenses
- Fiber Optic Collimators
- Laser Processing Heads
- Faraday Rotators
- Imaging Lenses
- Objective Lenses
- Field Lenses

### Instruments



- High-Precision Benchtop Multimeters
- Digital Oscilloscopes
- Ultra-High-Speed Digital Micromirror Spatial Light Modulators
- High-Precision Programmable DC Power Supplies
- Function/Arbitrary Waveform Generators
- Spatial Light Modulators
- TEC Temperature Controllers
- Scanning Oscillating Mirrors
- 20W Fiber Laser Marking Machines
- Time-Correlated Single Photon Counters
- Laser Drivers
- Single-Axis Scanning Micromirrors
- Pockels Cells

### Laboratory Tools



- Ultraviolet and Infrared Detection Cards
- Fiber Optic Inspection and Processing
- Optical Cleaning Tools
- Precision Measurement Tools
- Microscopy Experiment Tools
- Mounting Tools and Accessories
- Electrostatic Protection Tools
- Test Targets
- Laser Protection Tools

### Beam Measurement and Analysis



- Fiber Optic Spectrometers and Accessories
- Beam Quality Analyzers
- Single Photon Detectors
- Polarization Analyzers
- Laser Energy/Power Meters
- Amplified Detectors
- Cameras
- Integrating Spheres
- Shearing Interferometers

### Teaching Systems



- Volume Holographic Storage Experiments
- Vortex Beam Interference Systems
- QKD System Simulation Software
- BBO Entanglement Source Teaching Experiment Systems
- Continuous Spatial Frequency Transfer Function Measurement Systems
- Holographic Grating Fabrication and Parameter Measurement Systems
- Vortex Waveplate-Based Optical Tweezers Systems

### Opto - Mechanical Elements



- Coaxial Mounting Plates
- Sliding Coaxial Plates
- Flexible Coaxial Mounting Plates
- Rotating Coaxial Plates
- Quick-Release Coaxial Mounting Plates

### Fiber Optic Components



- Fiber Optic Delay Lines
- Wavelength Division Multiplexers
- Fiber Optic Isolators
- Fiber Optic Couplers
- Fiber Optic Flanges
- Fiber Optic Circulators
- Fiber Optic Cleaning Tools
- Fiber Optic Inspection and Processing
- Fiber Optic Polarizers
- Fiber Optic Collimators
- Fiber Optic Patch Cords
- Faraday Mirrors
- Fiber Optic Attenuators
- Pump and Signal Combiners
- Fiber Optic Polarization Controllers

## • FASTCOM - Yüksek hızlı veri iletişim adaptörü ve panoları

C4ISR (Komuta, Kontrol, İletişim, İstihbarat ve Keşif) tedarik zincirinde önemli bir tedarikçi ve insanlı uzay uçuş sistemlerinde kullanılmak üzere iletişim adaptörleri ve yazılımları.

- Sync Com 422/485  
P/N: 51082003







|                                                                                         |                                                                                     |                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Sync Com LVDS<br/>P/N: 51083003</li> </ul>     |    |       |
| <ul style="list-style-type: none"> <li>• Sync Com 232<br/>P/N: 51081003</li> </ul>      |    |      |
| <ul style="list-style-type: none"> <li>• Async Com 232<br/>P/N: 31081003</li> </ul>     |  |   |
| <ul style="list-style-type: none"> <li>• Async Com 422/485<br/>P/N: 31082003</li> </ul> |  |   |
| <ul style="list-style-type: none"> <li>• Async Com LVDS<br/>P/N: 31083003</li> </ul>    |  |   |



- PCIe / PCI - 104 Series / Universal & Compact PCI Bileşenleri.

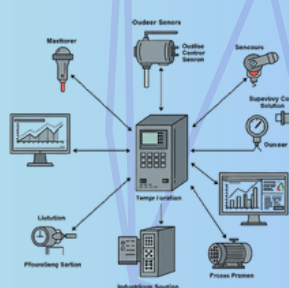


### • Kontrol ve Otomasyon Sistemleri

Üretim süreçlerine özel PLC, SCADA, sensör ve otomasyon çözümleri

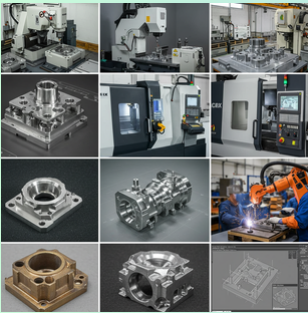


Production All Access Control System



### • Talaşlı ve Talaşsız İmalat

3D modelleme, CNC işleme, malzeme şekillendirme, kaynaklı imalat gibi üretim çözümleri.





**Neden biz? Çünkü Laboptik, farklı alanlarda uzmanlaşmış profesyonellerin bir araya gelerek oluşturduğu güçlü bir kadroya sahiptir. Bu çeşitlilikten doğan çok yönlü bakış açıları, firmamızın hem karar alma süreçlerine hem de sunduğu hizmetlerin kalitesine doğrudan yansımaktadır.**

**Disiplinler arası sinerjiyi etkin bir şekilde kullanarak, her müşterinin ihtiyacına özel, kapsamlı ve yenilikçi çözümler sunuyoruz. Bu yaklaşım, hem hizmet yelpazemizi genişletmekte hem de sektörde bizi farklı ve güçlü kılmaktadır.**





LABOPTİK MÜHENDİSLİK VE MEKATRONİK SİSTEMLERİ SANAYİ TİCARET LİMİTED ŞİRKETİ